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| **Unit Title:** Addition and Subtraction in Base Ten | **Pacing (Duration of Unit):** 10 weeks |

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| **Desired Results** |

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| **Transfer Goals (**Priority practice standards in **bold)** |
| *Students will be able to independently use their learning to:*   1. **Make sense of problems and persevere in solving them.** 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. **Model with mathematics.** 5. **Use appropriate tools strategically.** 6. **Attend to precision.** 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. |

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| **Established Goals (2011 MA Curriculum Frameworks Standards Incorporating the Common Core State Standards)** |

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| **Prerequisite Standards:**   * K.CC.1- Count to 100 by ones and tens. * K.OA.2: Solve addition and subtraction word problems, and add and subtract within 10 by using objects or drawings to represent the problem. * K.OA.3: Decompose numbers less than or equal to 10 into pairs in more than one way, by using objects or drawings, and record each decomposition by a drawing or equation. * K.NBT.1 - Compose and decompose numbers from 11-19 into tens and ones. | **WIDA for English Language Learners**  Standard 1: ELLs **communicate** for **Social** and **Instructional** purposes within the school setting  Standard 3: ELLs **communicate** information, ideas and concepts necessary for academic success in the content area of **Mathematics**  In the lesson planning stage, teachers will need to differentiate lessons for ELLs. In order to accomplish this they will need: 1.) this curriculum map, 2.) a list of their ELLs and their proficiency levels, and 3.) appropriate language function expectations and scaffolds or supports. |
| **Standards (**Priority Standards in **bold):**   * **1.NBT.1: Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.** * 1.NBT.2:Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:   + 1.NBT.2a: 10 can be thought of as a bundle of ten ones—called a “ten.”   + 1.NBT.2b: The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.   + 1.NBT.2c: The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). * 1.NBT.3: Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. * **1.OA.1: Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.9** * 1.OA.2: Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. * 1.OA.6: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use mental strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13). * **1.OA.7: Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false: 6=6, 7=8–1, 5+2=2+5, 4+1=5+2.*** * **1.OA.8: Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 =? – 3, 6 + 6 = ?.*** * **1.OA.MA.9: Write and solve number sentences from problem situations that express relationships involving addition and subtraction within 20.** * 1.MD.MA.5: *Introduce (Mastery in 4th quarter)* Identify the values of all U.S. coins and know their comparative values (e.g., a dime is of greater value than a nickel). Find equivalent values (e.g., a nickel is equivalent to 5 pennies). Use appropriate notation (e.g., 69¢). Use the values of coins in the solutions of problems. |  |

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| **Meaning (\*Mostly assessed through Performance Tasks/Assessments)** |

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| **Big Ideas:** (Statements and concepts written in teacher friendly language which reflect the important [but not obvious] generalizations we want students to be able to arrive at. These are used by the teacher to focus daily instruction.)   * The whole number system describes place value relationships within and beyond 100, and we use this system to solve problems with numbers. * Number relationships can be used to solve addition and subtraction problems. * The equal sign is a symbol that divides a mathematical sentence into two sides, and everything on the left side together has the same value as everything on the right. * Addition and subtraction involve patterns with counting. | **Essential Questions:** (Questions which frame ongoing and important inquires about the big ideas. They are written for students and used in daily instruction to help engage students in meaningful thinking.)   * What strategies can you use to solve addition and subtraction problems? * Why is understanding place value important? * Can numbers always be related to tens? * Why not always count by 1? * How big is 100? |

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| **Acquisition (\*Mostly assessed through traditional summative assessments)** | |
| **Knowledge:** Key basic concepts, facts, and key terms (written in phrases) students should be able to recall independently.  *Students will know …*   * That addition and subtraction and subtraction are opposites that have a relationship, and this relationship is used to solve problems. * That the equal sign is a symbol that divides a mathematical sentence into two sides, and everything on the left side together has the same value as everything on the right.   **Key Academic Vocabulary:**   * place value * model * Symbols for greater than (>), less than (<), and equals (=), and their meanings * Coins (penny, nickel, dime) and their values | **Skills:** The discrete skills and process students should be able to use independently.  *Students will be skilled at:*   * Composing numbers by modeling with manipulatives. * Counting to 120 starting at any number less than 120. * Comparing two 2-digit numbers. * Making models to solve word problems with up to three addends. * Adding and subtraction within 20. (Fluently within 10) * Modeling “taking from”, “taking apart”, “putting together”, and comparing numbers with unknowns. * Identifying coins and their values. |

**Resource Suggestions:**

**K-5 Math Resources** <http://www.k-5mathteachingresources.com/5th-grade-number-activities.html>

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| **Standard(s)** | **Link** |
| **1.NBT.2** | [**Build a Train**](http://www.k-5mathteachingresources.com/support-files/build-a-train.pdf)  [**Teens on the Ten Frame**](http://www.k-5mathteachingresources.com/support-files/teens-on-the-ten-frame.pdf)  [**Teens on the Ten Frame Book 1**](http://www.k-5mathteachingresources.com/support-files/teens-on-ten-frame-book1.pdf)  [**Teens on the Ten Frame Book 2**](http://www.k-5mathteachingresources.com/support-files/teens-on-ten-frame-book2.pdf)  [**Tens and Ones with Unifix Cubes**](http://www.k-5mathteachingresources.com/support-files/tensandoneswithunifixcubes.pdf)  [**Make 10 Bundles**](http://www.k-5mathteachingresources.com/support-files/make10bundles.pdf)  [**My Double Ten-Frame Riddle**](http://www.k-5mathteachingresources.com/support-files/mydoubletenframeriddle.pdf)  [**Tens and Ones Game**](http://www.k-5mathteachingresources.com/support-files/tensandonesgame.pdf)  [**Representing Two Digit Numbers with Base 10 Blocks**](http://www.k-5mathteachingresources.com/support-files/representing2digitnumberswithbase10.pdf)  [**Base Ten Concentration (2 Digit)**](http://www.k-5mathteachingresources.com/support-files/2digitbase10concentration.pdf) |
| **1.NBT.3** | [**Ten Frame Compare**](http://www.k-5mathteachingresources.com/support-files/tenframecompare.pdf)  [**Comparing Two Digit Numbers**](http://www.k-5mathteachingresources.com/support-files/comparing2digitnos1nbt3.pdf)  [**Scoop It**](http://www.k-5mathteachingresources.com/support-files/scoop-it.pdf) |
| **1.OA.1** | [**Addition Word Problems**](http://www.k-5mathteachingresources.com/support-files/1st-gd-addition-problems.pdf)  [**Subtraction Word Problems**](http://www.k-5mathteachingresources.com/support-files/1st-gd-subtraction-problems.pdf)  [**Add to: Change Unknown Problems (to 20)**](http://www.k-5mathteachingresources.com/support-files/add-to-change-unknown-problems-to-20.pdf)  [**Add to: Start Unknown Problems (to 20)**](http://www.k-5mathteachingresources.com/support-files/add-to-start-unknown-problems-to-20.pdf)  [**Take from: Change Unknown Problems (to 20**](http://www.k-5mathteachingresources.com/support-files/take-from-change-unknown-problems-to-20.pdf)**)**  [**Take from: Start Unknown Problems (to 20)**](http://www.k-5mathteachingresources.com/support-files/take-from-start-unknown-problems-to-20.pdf)  [**Bunk Bed Problem**](http://www.k-5mathteachingresources.com/support-files/bunkbedproblem.pdf)  [**Double Decker Bus Problem**](http://www.k-5mathteachingresources.com/support-files/double-deckerbus.pdf)  [**Making Apple Ten Packs**](http://www.k-5mathteachingresources.com/support-files/makingappletenpacks.pdf) |
| **1.OA.2** | [**Word Problems with 3 Addends**](http://www.k-5mathteachingresources.com/support-files/wordproblemswith3addends.pdf)  [**Find 3 Cards**](http://www.k-5mathteachingresources.com/support-files/find3cards.pdf)  [**Three Letter Addends**](http://www.k-5mathteachingresources.com/support-files/threeletteraddends.pdf) |
| **1.OA.7** | [**True or False?**](http://www.k-5mathteachingresources.com/support-files/trueorfalse.pdf)  [**Equal Sums**](http://www.k-5mathteachingresources.com/support-files/equalsums.pdf) |
| **1.OA.8** | [**Find the Missing Number**](http://www.k-5mathteachingresources.com/support-files/findthemissingnumber.pdf) |

**Illustrative Math**:<https://www.illustrativemathematics.org/1>

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| **STANDARDS** | **LINK** |
| **1.NBT.2** | [1.OA, NBT The Very Hungry Caterpillar](https://www.illustrativemathematics.org/illustrations/1150)  [1.NBT Roll & Build](https://www.illustrativemathematics.org/illustrations/987) |
| **1.NBT.3** | [1.NBT Ordering Numbers](https://www.illustrativemathematics.org/illustrations/6)  [1.NBT Where Do I Go?](https://www.illustrativemathematics.org/illustrations/682)  [1.NBT Comparing Numbers](https://www.illustrativemathematics.org/illustrations/1102) |
| **1.OA.1** | [1.OA At the Park](https://www.illustrativemathematics.org/illustrations/160)  [1.OA Boys and Girls, Variation 1](https://www.illustrativemathematics.org/illustrations/161)  [1.OA Maria’s Marbles](https://www.illustrativemathematics.org/illustrations/162)  [1.OA Sharing Markers](https://www.illustrativemathematics.org/illustrations/163)  [1.OA Finding a Chair](https://www.illustrativemathematics.org/illustrations/194)  [1.OA Boys and Girls, Variation 2](https://www.illustrativemathematics.org/illustrations/195)  [1.OA The Pet Snake](https://www.illustrativemathematics.org/illustrations/196)  [1.OA Measuring Blocks](https://www.illustrativemathematics.org/illustrations/197)  [1.MD Growing Bean Plants](https://www.illustrativemathematics.org/illustrations/1086)  [1.OA 20 Tickets](https://www.illustrativemathematics.org/illustrations/1152)  [1.OA Field Day Scarcity](https://www.illustrativemathematics.org/illustrations/1317)  [1.OA School Supplies](https://www.illustrativemathematics.org/illustrations/2)  [1.OA Link-Cube Addition](https://www.illustrativemathematics.org/illustrations/1650)  [1.OA Measuring Blocks](https://www.illustrativemathematics.org/illustrations/981) |
| **1.OA.2** | [1.OA Daisies in vases](https://www.illustrativemathematics.org/illustrations/468)  [1.OA, NBT The Very Hungry Caterpillar](https://www.illustrativemathematics.org/illustrations/1150) |
| **1.OA.7** | [1.OA Valid Equalities?](https://www.illustrativemathematics.org/illustrations/466)  [1.OA Using lengths to represent equality](https://www.illustrativemathematics.org/illustrations/1057)  [1.OA Equality Number Sentences](https://www.illustrativemathematics.org/illustrations/475)  [1.OA, NBT The Very Hungry Caterpillar](https://www.illustrativemathematics.org/illustrations/1150)  [1.OA 20 Tickets](https://www.illustrativemathematics.org/illustrations/1152) |
| **1.OA.8** | [1.OA Find the Missing Number](https://www.illustrativemathematics.org/illustrations/4)  [1.OA Kiri's Mathematics Match Game](https://www.illustrativemathematics.org/illustrations/991) |

**Technology (VIDEOS)**

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| **STANDARD** | **LINK** |
| **1.NBT.2** | <http://www.khanacademy.org/math/early-math/cc-early-math-place-value-topic/cc-early-math-tens> |
| **1.NBT.3** | <http://www.khanacademy.org/math/early-math/cc-early-math-place-value-topic/cc-early-math-tens> |
| **1.OA.1** | <http://www.khanacademy.org/math/early-math/cc-early-math-add-sub-topic/cc-early-math-add-subtract-20> |
| **1.OA.2** | <http://www.khanacademy.org/math/early-math/cc-early-math-add-sub-topic/cc-early-math-add-subtract-100> |
| **1.OA.7** | <http://www.khanacademy.org/math/early-math/cc-early-math-place-value-topic/cc-early-math-patterns-topic/e/meaning-of-equal-sign-1> |
| **1.OA.8** |  |

**enVision**

Lesson 2-9 (connecting addition and subtraction)

Lesson 1-5 (intro addition expressions and number sentences)

Lesson 9-3 (comparing numbers with <, >, =)

Lesson 3-4 (missing parts of 10)

**Go Math**

Lessons 1.1, 1.2, 1.7

Unit 2

Unit 5

Unit 6

Revisit 3.10, 3.11, 3.12

MD. MA.5 Supplement as Massachusetts Standard- (values of coins)